Analytical Study of the Historical Contribution of Muslims in Horticulture During 800-1250 AD

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Abstract
In Islamic history, horticulture had a prominent place in the Muslim era. The Arabs planted gardens in Medina and Taif. In this sense, gardens were an important source of food and trade. Leaving Arabia, when Islam reached Persia and Syria and Egypt and Andalusia, Muslim kings and rulers planted gardens. They not only encouraged farmers but also took personal interest. The Arabs planted fruit trees abundantly in mountainous and desert areas. And when the canals were dug, fruit trees were planted along their banks. Palm groves were plentiful in the Hijaz and later planted in Iraq and Syria. During the Umayyad period, the fruit trade spread throughout Arabia. Similarly, when Muslims arrived in Andalusia, gardening was a common industry. From Abdur Rehman to the end, the rulers were fond of horticulture, thanks to which the cultivation of new plants was promoted and Muslim botanists played a vital role in the field of horticulture. This research paper mainly highlights and explains the role of Muslims in the field of horticulture and how they have strengthened this field with their research efforts and experiences.

Keywords: Arabs, Muslims, History, Horticulture, Contribution, Syria, Andalusia, etc.

Introduction
It is a common thing in modern times that the scientific revolution in Europe has led to an economic revolution in the world. Europeans not only forgot the role of Muslim scientists, but also turned a blind eye to the role played by Muslims in a bright past. With the exception of a few Western Orientalists, most played a partisan role. But history is not for anyone to forget everything. The pages of history bear witness to the enlightened role of Muslims in any sphere of life. In the field of science, where he laid the foundations of science, agriculture, irrigation and horticulture remained an important subject of his attention. The Muslims paid special attention to horticulture and laid the foundation for the cultivation of many new fruit trees, such as the cultivation of olives, which was an important achievement of the Muslims.1
Olive produced largely in Andalusia and it was produced in large quantity. People of Andalusia not only benefited from this fruit but the entire Europe benefited from this through the efforts of the Muslims of Andalusia. Orchards were planted everywhere in Andalusia and many fruit nuts or pens were imported from various foreign countries, such as pomegranates from Syria. So this paper is an analytical attempt at the efforts of Muslims in the field of horticulture.

**Research Methodology**

This is an analytical study and basically the research is related to the historical perspective and the data is based on qualitative approach. Therefore, historic method of research has been used in this research with the help of documentary sources based on primary and secondary sources i.e. books, articles and the other available historical sources related to this research.

**Review of Literature**

Literature is very important component of historical research. Literature on this topic is mostly fragment and it is not easy to touch the all relevant data regarding this topic. But there is an attempt to consult the most relevant literature i.e. History of Muslims in Spain, History of Arabs, Moors in Spain, Tareekh-e-Islam, Nafah-ul-Teeb, Tamadun Arab, Khilafaat Andalusia i.e. are remarkable.

**Discussion**

Even in the early days of Islam, there was a special focus on gardens and gardening was an excellent source of income. Even before the advent of Islam, Medina and Zaif were famous for their gardens. There were many orchards of date palms and vineyards. The cultivation and protection of orchards was also ensured during the spread of Islam and the rule of the world. During the conquest of Khyber, the destruction of orchards was strictly forbidden and caution was given not to damage fruit trees. Similarly, when the armies left, the Rightly Guided Caliphs always advised them not to destroy fruit trees and fields. During the Prophet’s time, many of the Companions not only had gardens but also traded in dates. During the conquest of Iran and Syria, the Companions engaged in farming and gardening in the conquered areas. But in the Umayyad period, not only did horticulture flourish on a regular basis, but production began on a large scale by improving the irrigation system. In the time of Banu Abbas, the time of Harun al-Rashid was the golden age of this series when there was an abundance of gardens. Promoted gardening from Baghdad to the borders of the Islamic Empire.

While other disciplines flourished with the establishment of the House of Wisdom in the time of Mamun, the interest of medical experts in plants highlighted the medical importance of plants. The beginnings of development in horticulture during the Abbasid period were plundered by the Mongols, but re-ignited by the Muslims in Spain. Abd al-Rahman made Andalusia the head of the gardens. He invited all kinds of plants from all over the world and planted them in Andalusia. Similarly, from the time of the rule until the fall of Granada, unfortunately, Andalusia was the center of horticulture. The role of Muslims in horticulture is reviewed in this research article.

Islam promoted tree as the Quran is the source of various sciences and explains all the
sciences. It also mentions the sciences which we call science and botanical science is one of them. Allah Says in the Holy Quran “It is Allah Who sends down for you rain from the sky which you drink, from which you make the trees grow and graze your animals. Indeed, these are signs for a people who reflect.”

In the Holy Quran, Allah Almighty has made different tastes of trees and shrubs as His sign. Some are double-stemmed, and some are single-stemmed. They are all irrigated with the same water, and we give some of them superiority over others in taste. Surely in all these there are signs for those who use their intellect. In another place, Allah Almighty has declared the trees as one of His blessings. He said: Then We caused to grow in it gardens of abundant water. It was not in your power to make their trees grow. Is there another god with Allah? no! Rather, they have turned away from the path.”

Hazrat Muhammad (PBUH) has declared tree planting as a charity for the believers in order to promote tree planting. He said: Charity will be counted by him.

He gave so much importance to tree planting that he ordered to continue this process till the Day of Resurrection. The Prophet (PBUH) said: He may not stand without planting. In his teachings, not only are there rules for planting trees, but there are also clear rules for protecting trees by planting them.

Whoever plants a tree, then protects and watches over it until the tree bears fruit, it will be a cause of charity with Allah for him. Unnecessary cutting of trees, especially fruit trees, has been declared immoral and disgusting. It is narrated on the authority of ‘Abdullah ibn Habash that the Prophet (peace and blessings of Allah be upon him) said: Charity will be counted by him.

Whoever cuts down a berry tree, Allah will turn his head upside down in Hell.

Acacia or berry tree is common in Arabia. The Prophet (peace and blessings of Allah be upon him) said about the berry tree: Whoever cuts down the berry tree, Allah will cast him face down in Hell.

Hazrat Salman appeared in the service of the Persian Messenger of Allah and told me that there is a barren land of Judaism. The Holy Prophet (peace and blessings of Allah be upon him) ordered the Companions to go and lose 360 hours. The Prophet (peace and blessings of Allah be upon him) planted palms with his blessed hands and the Companions gave him water. When he planted the last palm tree and looked behind him, all the palm trees were young and had gone to high to give dates. He was surprised to see this, he became a Muslim and he also freed Hazrat Salman Farsi. The palm groves shown in this picture are in the hands of the Holy Prophet. Famous companion of the Holy Prophet "Sabit ibn al-Dahdah ibn Naem ibn Ghanim ibn Ayas." He is one of the Companions. He had two palm groves, out of which 600 palm trees in the big garden, "Thabit bin Al-Dahdah bin Naem bin Ghanim bin Ayas". Therefore, he is called "Blue Ansari". It is well known that he was a Companion. You had two palm groves, the largest of which had 600 palm trees. The tree is a great blessing of Allah Almighty, with which there is companionship even in this world and the very identity of Paradise is with the gardens and trees. There are also real needs. The life of beasts is due to forests and trees. Ever since deforestation began, these beasts have become extinct, while trees are also a source of human oxygen, shade, fruit and cooling. According to researchers, trees help humans breathe as tree provides oxygen.

After the Prophet era, Muslims had a credit to promote the discipline of horticulture from their early period at Arabia and they shifted this field into the entire Islamic world from
Arabia to its surrounding areas. The grapes and dates were the favorite fruits. Due to poverty Arabs concentrated on dates even during the war days. In the modern world it is assumed that Muslims contributed in Islamic theology and they have no share in other discipline of life. But on the pages of history it is preserved that Muslims were the patronage and custodian of agriculture and this field horticulture.

Agriculture also flourished in the early days of the Abbasi Caliphate. Although it remained in the hands of the ancient inhabitants. But with the attention of the caliphs, it improved. The barren fields and barren villages were reclaimed and rehabilitated. The government focused on the Euphrates Valley, the most fertile area in the entire empire. The old Euphrates canals were re-dug or new canals were built. The area of Khurasan was also fertile. It was one of the highest paying provinces.

Ports such as Baghdad, Basra, Cairo and Alexandria became centers of maritime trade. From the time of Mansoor, Muslim traders started going to China. Similarly, to the west, they traveled to Morocco and Andalusia. They carried dates, sugar, cotton woolen garments, steel tools and glassware from the Arabian Peninsula and imported spices, camphor, silk and ivory, ebony from the Far East. At night the old canals were re-dug or new canals were built. The area of Khurasan was also fertile. It was one of the most tributary provinces. According to Arab geographers, the outskirts of Bukhara had become a real garden. Flowers were also widely grown for commercial purposes. In Damascus, Shiraz, Firozabad and Persia, etc., the perfume industry of rose, lotus and violet was developing.

During the Abbasid period, the empire expanded and civilization flourished. As a result, trade flourished. Ports became centers of maritime trade. Traders used to go to China on one side and Andalusia on the other side with the products of the Arab regions and return to the Arab regions with their goods there. Similarly, various industries also developed. Factories for carpets, curtains, floors, apparel, jewelry, paper, soap and glass were established in various cities. Minerals were extracted from different parts of the country. Attention was also paid to agriculture. Barren lands were made cultivable. Canals were dug for irrigation. A variety of fruits, flowers and salads were grown.

The Muslims developed this sector in all the areas where there was scope for agriculture and planted more trees in large numbers. One of the reasons for attachment to trees was the command of the Prophet. After arranging irrigation, special attention was paid to the cultivation of olives, dates, fruits, oranges, lemons, figs, almonds, pomegranates, bananas, apples, walnuts, oak, peaches, peaches, wheat and gram in the Islamic Empire along with cereals. It was the work of Muslims in the world. Muslims also planted many fragrant plants including sunflower, clove, sandalwood, Zaffron. The Muslims allowed the cultivable lands in their conquered areas to be cultivated by their former owners and also built roads and bridges for their convenience. In addition, they reduced the amount of revenue and gave them the freedom to trade. As a result, as production increased, people became more prosperous and more and more people began to be attracted to this sector. According to Thatcher, Muslim botanists studied the best time to sow seeds after learning about their movements in plants. They also improved the seeds through transplanting. They knew eight ways to transplant. In all the big cities and towns there were agricultural madrasas where the information obtained was passed on to the farmers. Biologists and botanists were aware of the harmful effects of sun exposure on small plants and how to protect fruits from harmful
pests. He continued about Muslims in these words "Muslims did a great job in gardening. They knew how to transplant, and they knew how to grow new varieties of flowers and fruits. He began to cultivate as many trees and plants in the East as he did in the West, and wrote scientific pamphlets on agriculture. " For a long time, the olive oil industry continued to flourish here.14

Ameer Ali Syed with the reference of Hitti, "In the field of natural history especially botany, pure and applied, as in that of astronomy and mathematics, the western Muslims (of Spain) enriched the world by their researches. They made accurate observations on the sexual difference of various plants." According to Professor Arnold, the process of Muslims from all over the world traveling to Mecca and Medina for Hajj and pilgrimage has made significant progress in biological science. Al-Ghafiki and Al-Idreesi traveled from Andalusia (Spain) to Africa, collecting information on hundreds of plants and compiling books. Ibn al-Awwam compiled a book containing the properties and conditions of 585 plants and put botany on the path of development. On the subject of botany, Al-Dinuri wrote a six-volume "Kitab-e-Nabat" which is considered to be the first comprehensive and comprehensive Encyclopedia Botanica in the scientific world. This book was written at a time when people were ignorant of knowledge and Arabic translation of Greek books had not even begun.15

The ruler of Islamic Spain, Abd al-Rahman I, founded an agricultural research institute in Cordoba called the "Hadiqa Botany of Medicine", which provided opportunities to establish not only botany but also medicine. There were also research doors in medical sciences. Thus, Andalusian botanists have rightly discovered the existence of sex differences in plants. In this discovery, where he was assisted by the empirical research done in the "Hadith of Botanical Medicine", the command of Allah, the Lord of Glory, "All things have been created in pairs" 16

The study of botany in Andalusia was started by the Muslims in their early days. Research on medicinal plants was an integral part of the development of medicine. So Abd al-Rahman I set up an agricultural research farm in Cordoba called Hadiqa Botanical Medicine, where physicians and botanists had the opportunity to study the properties of plants, their breeding and their effects. Abd al-Rahman I took special interest in the patronage of botany and imported seeds and cuttings of plants and trees that were not available in Andalusia from distant lands. He therefore sent official delegations not only to the continent of Africa but also to most of the Asian countries to help in the search and production of rare plants, trees and herbs. Abdullah bin Abdul Aziz Al-Bakri compiled the properties of the trees and plants of Andalusia under the name of 'Kitab Ayan Al-Nabat wa Al-Shajariyat Al-Andalusiya'. Ibn al-Rumiyah, a botanist, traveled to most of Africa and Asia, except Andalusia, and studied the plants and herbs found during that time from a purely botanical point of view.17

Abd al-Rahman, who was fond of gardening, He planted strange trees and plants which were not present in Andalusia from outside in his vast garden. He used to spend a lot of his time in this garden. It is said, when Abdul Rahman formed a strong government in Andalusia, he planted an air garden west of Cordoba. And named Risafah, he adorned the garden with wonderful plants with the help of experts. Plants from many countries were sought for this garden. From Syria and Iraq, plant beautiful and delicious fruit plants, seeds and nuts of different plants. Geographers were also called in to help. This garden was taken care of very carefully. Experts look at the condition of each plant in the garden on a daily basis. The result was that in a few years these plants converted into trees and began to produce excellent
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crops, after which Cordoba had abundant fruit. Abdur Rehman’s sister Umm Asbagh used to send him fruits from Syria as gifts. While she sent some pomegranate was flowing, Abdul Rehman planted a pomegranate.

Conclusion
Islam is the religion of nature and the source of human welfare. It highlights every positive aspect of life that contributes to the well-being of humanity. Trees are an important stepping stone to human employment and development. Islam declared tree planting as charity. From the time of Prophethood, horticulture started to flourish and then it continued to grow gradually. Muslim botanists played a key role in horticulture during the Abbasid period, focusing on the growth of trees. And as the seasons began to be planted, geographers also suggested suitable areas in this regard. The sources of irrigation began to play a role. Then came the era of Abdul Rahman and the horticulture industry flourished. In the history of Andalusia, the Muslims paid the most attention to gardening, which resulted in Andalusia gaining a prominent place in the world for gardens. Summarizing this discussion, we can say that Muslims, like other sciences, played a central role in bringing horticulture to its peak. Ignoring their historical role would make the history of horticulture incomplete.

References
3. Prof. A. Qureshi, Tareekh-e-Islam, Lahore, 1993, P262
4. Sarwat Solat, Milat-e-Islamia ki Tareekh, Lahore, 1997, P.376
6. Al-Quran, 27 :59-60
7. Al-Quran, 13: 04
8. (Sahih Bukhari)
9. Munsad-e-Ahmad
12. Stanley Lane Poole, History of Moors in Spain, 1886, P. 191
14. Thatcher Oliver, A General History of Europe, New York, 1900, P. 181
17. P.K.Hitti, P.584